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# CHAPTER 12 GENERAL SAFETY RULES

# 12 GENERAL SAFETY RULES

## 12.1 GENERAL

It is the responsibility of every employee to know and adhere to the Safety Rules and Regulations which apply to the area in which he or she is working or visiting.

**A. Report all injuries** and property damage to your Supervisor.

**B. Report all Unsafe Conditions** to your Supervisor.

**C. Fighting**, disorderly conduct, horseplay and practical jokes are prohibited.

**D. Reporting for Work Under the Influence of Intoxicants** will not be permitted. Use of intoxicants during working hours is prohibited. Monroe County is a drug free workplace.

**E. Unauthorized Firearms** or explosives will not be allowed on County property.

**F. Smoking Regulations** shall be observed and obeyed. County policy prohibits smoking in County buildings and County vehicles.

**G. Fatigue can be unsafe:** No person will be permitted to work if their ability or alertness is impaired through fatigue or other causes as to make it unsafe for themselves or their fellow workers.

**H. Employees Shall Not Wear:** jewelry, loose clothing, neckties, loose headbands or have long loose hair when working around or operating rotating machinery and equipment.

**I. Review the Safety Material** posted on bulletin boards or distributed in your work area.

**J. Do Not Operate Machinery While Taking Medication** which warns against the operation of machinery. Report all use of such medication to your Supervisor immediately.

## 12.2 PROTECTIVE EQUIPMENT AND DEVICES

**A. Guards** installed on machinery and equipment, barriers, and other protective devices provided for employees protection shall not be removed, and will be used in accordance with established rules and procedures.

**B. Personal Protective Equipment** shall be worn when performing work requiring such protection.

**C. All Fire Safety Equipment** such as fire extinguishers, hose racks, hose reels, detectors, fire alarms, and fire lanes shall be kept clear of obstructions and tamper free.

**D. Notify a Supervisor** of fire safety equipment that is damaged or will not operate.

**E. Only Authorized Persons** will enter roped off or barricaded areas.

**F. Emergency Equipment** will not be removed or used except for simulated or actual emergencies.

**G. Report All Instances** where guards are not installed, are inoperative, or are in need of replacement or repair.

## 12.3 OPERATIONAL HAZARDS

**A. Good Housekeeping** shall be maintained in all areas. Walkways, aisles and working areas shall be kept clean and free of obstructions.

**B. Compressed Air** and other gases under pressure must be used only for the purpose intended.

**C. Do not operate machinery** or equipment unless you are trained and authorized to do so.

**D. Use the right tool for the job**: it is improper to use pliers to drive nails.

**E. Inspect Tools Regularly** for damage and defects. Replace or turn in all defective tools.

**F. Portable Electrical Tool** should be in good condition:

1. Portable electrical tools are required to be grounded at the case or frame or grounded by use of a three wire conductor and plug, if not double insulated. If an extension cord is to be used with the tool, the cord must be of the three-wire grounded type.

2. Double-insulated portable electrical tools are internally grounded by incorporating insulation in the case or frame. The wire containing the male plug will have two prongs in the place of three. Check the plate on the tool to ensure that it states that the tool is "double-insulated" and will not require the prescribed ground wire and plug.

3. Never use or try to repair unfamiliar power equipment.

4. Always protect electric cords from damage by oil, ensure their insulation is not frayed or broken, and keep them clear of aisles where they may be run over by trucks or other equipment or cause a tripping hazard.

## 12.4 BACK INJURY PREVENTION

80% of Americans have back problems at some time in their life. It can be serious and chronic.

### A. Proper Lifting Procedures

Lifting the wrong way is a major cause of back injury. So, when you lift, keep your back straight, and let your legs do the work. It has been determined by the Safety /Accident Review Board that County employees that lift heavy objects must wear back support (back belts)

To Lift Properly:

1. Consider the size, weight, and shape of the object to be carried. Do not lift more than can be comfortably handled. If necessary, get help. Split up the load, don't be in a rush.

2. Set feet solidly with one foot slightly ahead of the other for increased effectiveness. Feet should be far enough apart to give good balance and stability.

3. Get as close to the load as possible. Bend legs about 90 degrees at the knees. Crouch, do not squat. It takes about twice as much effort to get up from a squat.

4. Keep the back as straight as possible. It may be far from being vertical, but it should not be arched. Tuck in the chin so the head is in line with the back. Bend at the hips, not the middle of the back.

5. Grip the object firmly. Maintain the grip while lifting and carrying. Before changing the grip, set the object down again.

6. Tighten the stomach muscles and straighten the legs to lift the object and at the same time bring the back to a vertical position.

7. Never carry a load that you cannot see over or around. Make sure the path of travel is clear.

## B. Back Support and Comfort

1. Wear back support (back belt) if lifting heavy objects.

2. Stand tall with head up, shoulders back. Shift positions frequently. If you're standing in one place for very long, keep one foot on a raised step.

3. Sleep on a firm mattress or with a board between mattress and box springs. To relax your back, sleep on your side with your knees bent or on your back with a pillow under your knees.

4. Drive so your back is straight against the seat. Keep your knees bent, slightly higher than your hips.

5. Use a ladder to reach high objects.

6. Push, don't pull, heavy objects.

7. Exercise for Muscle Tone

   a. Pelvic Tilt - Lie on your back, knees bent, feet flat on the floor. Tighten your stomach and buttocks muscles, pressing your lower back against the floor. Hold that position for a few seconds. Let the muscles relax. Then repeat.

   b. Half Sit-Up - Lie on your back, knees bent, arms at sides. Slowly pull your head, neck, and shoulders up, and raise your arms to touch your knees. Hold for a few seconds, then slowly lie back. Repeat.

   c. Wall Slide - Stand with your back to a wall, legs slightly apart. Pull in your stomach and buttocks until your lower back presses the wall. Then move your feet out a little and slide your back down the wall

almost to a seated position. Hold that for a few seconds, then slowly slide up. Repeat.

d. Shoulder Shrug - Stand or sit, head up, arms at sides. Shrug your shoulders up toward your ears, as high as you can. Hold for a few seconds, then relax. Repeat.

8. Rules for Back Protection

a. Use mechanical help to lift or move whenever possible. When no one is around to help or the load is too heavy; use a hand truck, forklift, hoist, dolly or other device.

b. Let leverage do the work - Leverage can help do the work without straining your back.

c. Lift with your legs when shoveling. For the best leverage, keep your hands far apart, legs bent at the knees, back straight.

d. Clear your path. Get rid of any hazards you see such as obstacles, spills, etc., before you pick up your load.

e. Split big loads into smaller loads. Don't try to carry a heavy load when it can be split into smaller ones. The little bit of extra time can save you an awful lot of pain. Don't be in a big rush.

f. Bend your knees when you're working low. Keep your back as straight as possible. Bending from the waist can hurt your back.

g. Don't jump from short heights such as loading docks, trucks or platforms. The shock could hurt your back. Use a ladder or carefully lower yourself down.

h. Lifting high loads can be dangerous. Test the weight first. Then get as close as you can, and let it slide down your body until you can grip it firmly. If you can't reach the load comfortably, use a ladder or get help.

## 12.5 LIFTING RULES

All employees are required to do some lifting, moving and handling of materials and equipment as part of their regular assigned duties. Avoid accidents by

learning the right way to handle materials. Know your physical capacity and limitations and get help if needed.

## A. Lifting, Carrying and Moving Materials.

1. Bags and Sacks: may be lifted by stooping down as far as possible and rolling the bag or sack up to the knees, chest and shoulder before straightening the legs and carrying with the back vertical. Place hand on hip so the bag or sack rests partly on the shoulder, arm and back. Be sure of your grip and footing.

2. Barrels and Drums: may be up-ended by grasping both ends, press down with one hand and lift the other in a rocking fashion until the drum is balanced on the bottom chime.

The lower grip may then be released and the drum placed on end. Keep feet in the clear. Do not drop drums or barrels.

3. Long Objects: should be carried on the same shoulders (left or right) of all persons making the carry. All persons should be in step.

4. Hazardous Materials: handling may have specific regulations for use of protective clothing and goggles, see Chapter 7.

5. Flammable and Explosive Material: will be moved only in properly marked and approved containers. Never transport flammable liquids in open containers.

6. Boxes, Cartons, Packages and Other Material

a. A box, carton, or package should never be handled by the steel strapping bands. A hand truck or forklift should be utilized when required.

b. Lift all cartons, boxes or materials properly. Always lift with your legs, not your back.

c. When two or more persons are required to handle an object, one person should be in charge and give signals for lifting, moving, lowering, and dropping in unison.

d. Before cutting metal strapping, ensure that no one is standing where they might be hit by loose ends or straps. (Eye protection should be worn during this operation.)

e. To cut bands, place one gloved hand on the strap to prevent injury from spring-back.

f. Before handling containers, inspect them for protruding nails, ends of wire, splinters and sharp ends of metal bands.

g. Package all loose items before moving.

h. Wipe off oil, grease, dirt or other foreign matter before lifting.

i. Wear gloves when moving rough, burned or jagged objects and those with sharp corners. Grip carefully before moving.

j. Hooks, crowbars, rollers and skids should be used when provided.

k. Be sure you know the path of travel before you pick up the load.

l. Be sure the path of travel is clear of obstructions and well lighted.

m. Stay within the prescribed safety aisles in warehouses and storage areas.

n. Never attempt to catch a heavy falling object as this can cause severe injury.

o. Do not stand on a box or truck when placing materials on a high pile or when reaching for an object above your head. Use an approved ladder.

### B. Hoisting and Lifting Equipment

Never overload hand or electrically operated hoists. The rated load will be legibly and permanently marked in a prominent location on all hoist and lifting equipment. (Jacks supplied with vehicles are excluded.) Rated load limits are not to be exceeded.

## 12.6 SLIPS, TRIPS and FALLS

Slips ,trips and falls contribute to over 11,000 deaths every year; 6,000 at home; 5,000 at work or public places. There are over 12 million injuries with $5,000.00 compensation costs or more.

## A. Primary Causes

1. Unsafe housekeeping
2. Change in physical conditions
3. Not paying attention to where a person is walking

## B. Avoiding Slips

Watch out for hazardous walking conditions

1. Hidden Steps: When turning a corner or stepping outside, look out for steps that may not be obvious.

2. Smooth Surfaces: Watch out on floors which have been waxed but not buffed and other highly slippery surfaces.

3. Carpets: Any rug which hasn't been tacked down or doesn't have a rubber mat may slip out when stepped on.

4. Loose Flooring: Use caution when walking over loose tiles, bricks or floorboards.

5. Wet Spots: Don't wait for a small spill to dry itself. It only takes a second for a serious accident to happen.

6. Oil/Grease: Have rags and detergent ready whenever you use oily materials. Don't let grease accumulate on a shop floor. Throw sawdust down to absorb it.

## C. Avoiding Trips

Good housekeeping is the key to safety.

1. Furniture: Arrange furniture in the office or home to avoid an obstacle course of potential falls.

2. Materials: It's hazardous to store materials in hallways and aisles they should be stored in closets and cabinets.

3. Electrical Cords: If extension cords must be used and can't be moved away from walking areas, make sure they are covered with anti-trip cord cover.

4. Untidy Floors: Any small thing--a pencil, piece of fabric, machine part--can cause a big fall.

5. Stairs: Don't store materials on the stairs. An extra trip upstairs can prevent a serious accident. Mark (paint yellow or apply yellow and black floor tape to) small changes in elevations such as a ramp or small step.

6. Drawers: Keep them closed--even when you think it's unlikely someone would bump into them.

7. Obstacles: If it's in the way, move it or walk around it--avoid climbing over it.

8. Outside: There are many tripping hazards; pay attention--don't be in a rush.

## D. Avoiding Falls

1. Check Lighting: Lighting is especially important in stairwells.

2. Repair or Replace: Look out for stair treads which are cracked or worn. Nonskid mats are a good idea, too. Ensure handrails are sturdy.

3. Watch Pant Leg Cuffs: They should be short enough to eliminate danger of catching heel while walking.

4. Wear Good Shoes: Nonskid soles are a "safe" choice. Keep shoes in good repair. Rubber heels are best. High heels or platforms offer less stability. Upper shoe should give ankles support. Keep laces tied.

5. Avoid Makeshift Ladders: Don't substitute a stack of furniture or boxes for a sturdy, properly balanced step ladder.

6. Sit 4-Square: Keep all four legs of your chair on the floor. Make sure that chairs are in good repair.

7. Get Help With Big Loads: Carry only what you can handle and keep your balance. Steady as you go.

8. Don't Jump: Lower yourself from docks, trucks or work stages.

## E. Helping to Prevent Slips, Trips or Fall Hazards to Others

1. Mark Wet Areas: Use signs to indicate wet areas when mopping or waxing, when spills occur, etc.

2. Mop When Traffic is Light: If this isn't possible, mop only a small area at a time, and rope it off.

3. Mark Working Areas: Use signs and cones to alert others to work areas, especially walking areas where workers are using tools, equipment, electric cords, etc.

4. Place Carpet Runner Properly: Runners placed at entrances should have a rubber backing, and they should lie flat. Replace runners that curl or slide on the floor.

5. Be Sensitive to Older Persons: Those who have reduced hearing, eyesight or mobility are especially vulnerable to slips, trips and falls. Make sure they're aware of hazards.

6. Pace Yourself: Allow yourself the time you need so you won't have to hurry or run.

7. Take Care: Travel at a safe speed. Watch out for other people. Change direction slowly.

8. Follow the Rules: Learn the safety rules for your job, whether it's working on roofs or on the ground. Know how to use all the equipment necessary for your job.

9. Act Your Age: Statistics show that falls are more deadly the older you are. Take your time now and you'll have more time later.

10. Use Safety Equipment: Belts, hard hats, special shoes, handrails, etc., are for your safety, but are worthless if you don't use them.

11. Don't Grope in the Dark: Use flashlight or extension light to make your footing visible in unlighted areas.

12. Don't Take Chances: Avoid foolish risks; avoid tasks that are beyond your ability to handle.

13. Be Alert: Watch where you are going. Watch what you are doing. Watch out for hazards that others might miss.

## F. Reduce Your Chance of Injury by Falling the Right Way If You Fall

1. Relax: Try not to stiffen and tense your muscles.

2. Absorb: Let your arms and legs give like a spring to absorb the impact of the fall.

3. Roll: Move in the direction of the energy of the fall, to minimize injury.

## 12.7 ERGONOMICS

### A. Sitting is a Major Cause of Back Strain

The best way to sit is straight, with the back against the back of a supportive chair, feet on the floor, knees level with or slightly higher than hips.

1. Hold reading upright instead of leaning over to read on the desk top.
2. Keep the chair close to the desk.
3. Support the lower back by putting a cushion behind it.
4. Turn the whole body, do not twist part of it, to reach off to one side.
5. Use an elbow to support the arm when on the phone.
6. Don't cradle the phone in the neck.
7. Shift seating positions regularly during the day.
8. Get up and walk around periodically.

Good sitting posture will help keep the spine in balanced alignment to avoid backache, fatigue, or back injury.

### B. Repetitive Motions Injuries

Many job tasks that have a repetitive motion, vibrations or constant strain on the muscles can lead to injuries. A hazard analysis of jobs that may cause injury should be approached with recommendations for improvement of the conditions. These analysis can be conducted by supervisors as well as the Safety Administrator. Also see Office Ergonomics Section 12.8, D.

## 12.8 OFFICE SAFETY

### A. GENERAL

Office work is generally considered to be one of the safest of all County activities, but little thought is given to the hazards that are present in most offices. Slips and falls on waxed floors, collisions with desks and chairs, strains from furniture moving, and other similar accidents are common to offices. Special machines and equipment used in office work also add to the accident potential.

1. Undue haste results in accidents. Do not run on stairs or through corridors. Enter and leave buildings in an orderly manner.

2. Bulky office supplies and materials must be properly lifted to avoid muscle strains. Use mechanical devices to lift or carry loads that cannot be easily handled by one or two persons.

3. Heavy office furniture and equipment will be moved only by properly trained and physically qualified personnel. Chairs, boxes and other objects will not be used as substitutes for ladders.

4. Overloading the top file drawer in the cabinets may overbalance the cabinet and cause it to fall forward when the drawer is pulled out. Put heavy materials in bottom drawers whenever possible.

5. Never tip your chair backward. This can cause an overbalanced condition and result in your falling to the floor. This also causes a strain on the chair to the point where it may break and cause you to fall.

6. Always close your desk drawers. Many injuries are incurred from bumping into open drawers.

7. Always close file cabinet drawers, especially when working in the lower files. If you suddenly raise your head you may receive a serious head injury by striking the drawer above you. Open file drawers account for many injuries to persons striking them while walking through the office.

8. Keep heavy books, equipment and other bulky materials off the top of file cabinets, they may fall on you, or cause you to suffer muscle strain when lifting them off the cabinet.

## B. Office Equipment and Machines

1. Objects such as knives, scissors, and pens will be handled carefully to avoid injuries. Unprotected spike files will not be used.

2. Only trained, qualified personnel will operate office machines. Operators will be given instruction in safe work practices and told of the particular hazards involved in the use of different machines.

3. Suitable office equipment will be provided for stamping, sharpening, and cutting operations. Makeshift tools such as unprotected razor blades and pins will not be used.

4. Electrical fans, pedestal, and oscillating desk fans or all types will be equipped with preferred safety guards when installed less than 7 feet above the floor. Extension cords will be unplugged when not in use and at the end of each day's work. All fans are required to be electrically grounded.

5. Electrical appliances used for coffee making and other purposes should be inspected daily to be sure that cords are in good condition and plugs are not broken or cracked. A fire-resistant base should be placed under all heat producing appliances to prevent a fire hazard.

6. Be sure that all electrical cords are unplugged from receptacles when appliances are not in use and at the end of the work day.

7. Only non-combustible waste baskets should be used in offices where employees smoke. All smoking materials will be placed in non-combustible ashtrays and containers.

8. Keep all flammable solvents and similar flammable liquids in a metal cabinet away from combustible materials. Identify the contents of all containers.

9. Splintered or jagged edges or other defects found on office furniture will be immediately repaired or the equipment removed from service. Projections on bookcases, filing cabinets, and desks should be guarded or removed. Only safety plate glass will be used on desks. Dispose of cracked or broken glass desk tops promptly.

10. Electrical cords and wires will not be strung across floors, but will be installed in conduits flush with the floor, covered by rubber or metal strips, or suspended from overhead.

## C. Office Area

1. Rough, splintered, uneven, protruding nails, holes, or other floor defects will be repaired or the hazard suitably marked. Floors will be kept clean and free of dirt and debris. Nonskid wax will be used on floors to prevent slipping.

2. Weather may cause mud, sand or water to be tracked onto floors near entrances. Storm mats will be placed at these entrances and the floors periodically mopped. Dual doors will be marked "Entrance" and "Exit" or "In" and "Out".

3. All stairways will be equipped with handrails and non-slip treads and be well lighted. Worn stair treads will be immediately repaired.

4. Rugs, mats and other type floor covering will be securely fastened to the floor.

## D. Ergonomics in the Office

The way you set up your display, your work table and your chair is probably the most important consideration in working comfortably. The following suggestions will help minimize fatigue and discomfort.

1. Adjust Your Chair - A comfortable chair, which allows you to sit in a variety of positions throughout the day, is important whether you work with a Visual Display Terminal (VDT) or any other piece of equipment. You can quickly find the sitting position that suits you best by following these simple suggestions.

    a. Adjust the height of your chair's seat so that your thighs are horizontal, your feet rest flat on the floor, and your arms and hands are comfortably positioned at the keyboard.

    b. Use a footrest if your chair is too high for your feet to rest flat on the floor when you are seated at the keyboard.

    c. Adjust the back rest so that it supports your lower back and fits the curvature of your spine.

    d. Change your seated position frequently throughout the work day.

    e. Also see Ergonomics Section 12.7

## E. Organize Your Working Area

A few minutes' thought about the best position for your display and the most effective use of the space available to you can save time and effort throughout the work day.

1. Organize your desk or work table to accommodate the materials and equipment you need.

2. Place the things you need regularly (such as a telephone or calculator) within easy reach.

3. Experiment with the placement of your keyboard, screen, and other items you work with to find the arrangement that works best for you.

## F. Adjust Your Display

1. Most displays feature a variety of adjustments which enable you to set up the equipment in a way which is most convenient for you.

2. Position the screen to minimize glare and reflections from overhead lights, windows, and other light sources.

3. Adjust the display so that the top of the screen is slightly below eye level when you're sitting at the keyboard. The top of the screen should not be above eye level.

4. Set the contrast or brightness of the screen at a comfortable level. (You may have to do this more than once a day, as the light in the room changes)

5. Where it is impossible to avoid reflections or adjust lighting, an anti-glare filter placed over the screen can be helpful. However, filters may affect the clarity of the image on the screen and should be tried **only** after other methods of reducing glare have been exhausted.

6. Most displays are equipped with brightness and contrast controls. Since the position of these controls varies, check operator's manual for location.

## G. Adjust the Lighting

In any office it is important to ensure that lighting is adjusted to a comfortable level. Windows, overhead lighting, and reflections from shiny surfaces can all create reflections on VDT's screen. To avoid distracting reflections and glare:

1. Draw the drapes or adjust the blinds.

2. Adjust the desk lamp or task light (if you use one) to avoid reflections on the screen.

3. Reduce overhead lighting (where possible) by turning off lights or switching to lower wattage bulbs.

## H. Adjust Your Document Holder

1. If work is done primarily from source documents a document holder is useful. When properly positioned, a document holder or copy stand can reduce the number of times you have to move your head when looking back and forth between the screen and source documents.

2. If a copy stand is used position it at a level that's comfortable, close to the screen and at the same level.

3. Position the desk lamp so that it illuminates source documents without causing glare on the screen.

## I. Vision Care

1. Concentrated visual activity, whether it involves reading conventional text or operating a VDT, can be fatiguing. Such fatigue is both normal and temporary, but it can be minimized with a little care, good work practices, and attention to the work environment.

2. Studies show that one out of every three people has some kind of uncorrected vision problem.

   a. Have vision checked as part of the regular health care program.

   b. Advise the vision care specialist of the visual tasks being performed. Eyeglasses suitable for one task may not be appropriate for another.

3. Clean the screen, anti-glare filter, and eyeglasses on a regular basis.

## J. Working Smart

1. Sitting in a fixed position for long periods of time can be fatiguing. Shifting your position and occasionally changing your routine (by doing other kinds of work, taking a stretch break, or focusing eyes on something else) can help reduce fatigue.

2. When feeling tired change position, stand up, or stretch.

3. Rest eyes occasionally throughout the work day.

4. Try to keep a soft touch on the keyboard and keep hands and fingers relaxed. A wrist rest is standard on all key boards today.

## K. Operator's Checklist (Overview)

1. Is the chair adjusted so feet rest firmly on the floor or a footrest?

2. Is everything needed within easy reach?

3. Is the top of the visual display screen at a comfortable height?

4. Are arms comfortable when working at the keyboard?

5. Are wrists resting lightly on a wrist rest for the keyboard and mouse?

6. Is the screen positioned to avoid reflections?

7. Is the keyboard adjusted comfortably?

8. Is vision corrected properly?

9. Change position throughout the day?

10. Adjust screen contrast and brightness to a comfortable level?

11. Is the screen clean?

## L. Carpal Tunnel Syndrome

1. General Overview

Carpal tunnel syndrome (CTS) is a common and troublesome condition that interferes with the use of the hand. It is caused when too much pressure is put on a nerve that runs through your wrist. Once symptoms of pain and tingling appear, the condition frequently worsens and permanent nerve damage may occur. However, CTS is highly treatable if diagnosed early.

The pain, numbness, and tingling of CTS can happen anywhere and anytime. But most often symptoms begin by waking you up at night. Shaking or massaging the hand may work temporarily, but if ignored, CTS gets progressively worse. The pain increases, the grip weakens, and you may begin dropping things. Fortunately, appropriate treatment is available.

It's always best to prevent CTS. When you notice symptoms, don't wait for them to become unbearable. The earlier you have a professional diagnosis and treatment, the more successful the outcome will be.

Treatment usually begins with a splint, medication, or both. If symptoms don't subside, your physician may recommend surgery.

2. The Carpal Tunnel

In CTS, the symptoms occur because a major nerve is compressed as it passes through a narrow tunnel of bone and ligament at the wrist. The result is numbness, tingling, "pins and needles", burning, and pain in the middle and index finger and thumb, and sometimes in all five fingers.

a. The Tunnel: In the center of the wrist, bones and a ligament form a narrow tunnel containing tendons and a major nerve.

b. Causes of Carpal Tunnel Syndrome: Various conditions cause wrist structures to take up extra space in the carpal tunnel. Since bones and ligament have no "give", this puts pressure on the nerve, resulting in symptoms.

c. Wear and Tear: The covering around tendons may become thick and sticky due to the normal wear and tear of the aging process or repetitive hand movements, thus pressing the nerve against the tunnel.

d. Bone Dislocation and Fracture: Previous dislocation or fracture of the wrist causes bone to protrude into the tunnel. Arthritis may also be present. Consequently, the tunnel becomes too narrow and puts pressure on the nerve.

e. Fluid Retention: Fluid retention causes swelling of tissue in the carpal tunnel, including perhaps the nerve itself. This occurs most often during pregnancy, with the symptoms subsiding after delivery.

3. CTS Prevention

a. Certain repetitive hand activities may put you at higher risk for developing a variety of wrist problems such as carpal tunnel syndrome. By learning how to modify the way you use your hands, you may be able to reduce the risk. Whenever possible, keep the following pointers in mind at home and on the job.

b. Keep Your Wrist Neutral: Avoid using your wrist in a bent (flexed), extended, or twisted position for long periods of time. Instead, try to maintain a neutral (straight) wrist position.

c. Grip with Your Whole Hand: Gripping, grasping, or lifting with the thumb and index finger can put stress on your wrist. When practical, use the whole hand and all the fingers to grasp an object.

d. Minimize Repetition: Even simple, light tasks may eventually cause injury. If possible, avoid repetitive movements or holding an object in the same way for extended periods of time.

e. Rest Your Hands: Periodically give your hands a break by letting them rest briefly. Or you may be able to alternate easy and hard tasks, switch hands, or rotate work activities.

f. Reduce Speed and Force: Reducing the speed with which you do a forceful, repetitive movement gives your wrist time to recover from the effort. Using power tools helps reduce the force.

g. Conditioning Exercises: Certain exercises strengthen the hand and arm muscles. They may help by reducing the need to compensate for these weak muscles with a poor wrist position.

4. Early Diagnosis

Accurate diagnosis is important because treatment for this condition is specific for CTS. The sooner you have a professional evaluation, the sooner your symptoms can be relieved, and the more likely it is that permanent nerve or muscle damage will be prevented. For your evaluation, your doctor will take a medical history followed by a physical exam; you may also require certain tests.

a. Medical History: Your doctor will ask you to describe your symptoms, which may feel like tingling, numbness, pins and needles, pain, or a heaviness in the hands and fingers. Your doctor will need to know if symptoms are mild and intermittent or severe and frequent, and whether they bother you only at night, or during the day, or both.

b. Physical Examination: The physical exam helps confirm that symptoms are related to a nerve problem, and then to localize the nerve problem to the wrist. Your doctor will examine your wrist for swelling and signs of previous injury. You may be tested for decreased sensitivity to touch or to pin pricks.

c. Tests: After the history and exam, your doctor may order additional tests to confirm and document the diagnosis of CTS if surgery is being considered. These include standard wrist or carpal tunnel x-rays; a nerve conduction test and an electromyogram are an objective means of making a definitive diagnosis.

5. Treatment

a. Treatment of carpal tunnel syndrome usually begins with a wrist splint, medications, or a combination of the two. These simple, nonsurgical treatments help at least temporarily in many cases, especially if symptoms are mild. Splints and medications may also function as an interim treatment they provide some measure of relief if you are going to have surgery.

b. Splints: Flexing the wrist downward or extending it up worsens CTS symptoms because this narrows the tunnel and puts more pressure on the nerve. Both **night splints** and **occupational splints** are designed to keep the wrist in a less extreme, or

"neutral", position. This may reduce the pressure in the tunnel and relieve or prevent worsening of symptoms.

c. Medications: Medications are used to reduce swelling and inflammation, and therefore ease pressure on the median nerve. **Non-steroidal anti-inflammatory drugs** are taken orally as directed by your doctor. Or a **steroid drug** may be injected directly into the carpal tunnel. A single injection may bring relief for months, or it may need to be repeated. (If the injections provide relief, this generally confirms a diagnosis of CTS.) In some cases, diuretics (water pills) or pyridoxine (vitamin B-6) may help.

d. Surgery: may be recommended if you have severe pain, if you have other symptoms that persist in spite of nonsurgical treatment, or if you are at risk of developing permanent nerve damage. Your doctor will explain the procedure, its risks and complications, and give you pre-op and post-op instructions, which may include rehabilitation exercises to restore hand function.

e. The Procedure: The surgical procedure is called **carpal tunnel release.** It takes 45 minutes to one hour, and is usually done as same day surgery. While a tourniquet is on your arm, the transverse ligament is divided to open up the carpal tunnel and relieve the pressure on the nerve; thickened synovial tissue may also be removed.

## 12.9 FIRE SAFETY

Deaths, injuries, and property damage are caused by fires every year. On-the-job fires are often the result of using poor judgment or not following fire safety rules.

### A. Causes of Fires

1. Flammable Liquids: Gasoline and solvents are extremely dangerous. If you **must** use them:

a. Store them only in approved safety cans or storage cabinets. Be sure they are labeled.

b. Keep them in areas that are well ventilated.

c. Store them away from heat or sparks.

d. Clean up spills right away.

e. Never smoke or light a match when you're near flammable liquids or handling them.

f. Oily rags must be stored in a covered metal container with a self-closing cover.

**Spontaneous ignition** happens when heat builds up in piles of trash, damp waste or oily rags.

2. Arson: Some fires are started deliberately. If you see someone or something suspicious, report it to your supervisor. Arson and arson attempts shall be reported to the Fire Marshal's Office.

3. Smoking

a. Careless smoking can cause fires.

b. It is the policy of Monroe County that no one is to smoke in any building or vehicle in Monroe County.

c. Smoke only in areas where smoking is allowed, outside the building.

d. Use butt cans and ashtrays for cigarettes and matches.

## B. Prevention

1. Flammable Materials

a. Use approved storage containers that are properly grounded to prevent static electricity.

b. Move flammables carefully, and only in approved containers.

c. Keep your work area free of drips and spills.

d. Follow the rules for disposing of containers and wastes.

e. Non-work related open flames are prohibited.

2. Check Equipment

a. Equipment and machinery should be thoroughly inspected at regular intervals.

b. Check firefighting equipment regularly to make sure it will work if you need it.

c. Keep your work area neat and uncluttered, free of flammable and ignitable materials.

d. Be careful how you handle and store combustible materials.

e. Deposit oily rags in safety cans.

f. Smoke only in designated areas.

g. Stay out of prohibited areas.

## C. Identify and Eliminate Fire Hazards

1. Employees are responsible for reporting unsafe conditions:

- Spills of flammable liquids
- Overloaded circuits, faulty connections, frayed, exposed wires
- Poor ventilation
- Dirty tools, equipment and machinery
- Messy trash areas
- Oily rags that are not covered
- Clogged flues and pipes
- Broken firefighting equipment
- No ashtrays in designated smoking areas
- Open flames

2. Take action yourself.

3. Clean equipment, tools and machinery.

4. Repair any equipment you're qualified to fix.

5. Prevent machinery from overheating.

6. Keep items that are flammable or combustible away from flames and hot surfaces.

7. Repair or replace leaking tanks, pipes and gas lines.

8. Put oily rags in covered containers.

9. Wipe up spills.

10. Remove doorstops or wedges used under fire doors. Report broken fire doors or exits that are blocked or locked.

11. Don't let materials pile in corridors, stairwells and exit lanes.

12. Don't use portable space heaters indoors.

13. Keep flammable materials away from incompatible hazardous materials i.e.; acids or store flammable gases near oxygen tanks.

14. In case of fire especially when hazardous materials are involved:

a. Use the evacuation plan for your work area.

b. Head for the designated fire exit.

c. Use a secondary exit if the first is blocked.

d. Close doors behind you as you go.

e. Inform responding fire department of the hazardous materials involved.

## D. Fire Equipment

1. Fire Extinguishers

a. Fire extinguishers are your first line of defense in a fire.
b. Know the location of the closest fire extinguisher.
c. Don't try to use a fire extinguisher unless you've been trained.
d. Learn which fire extinguisher to use on what kind of fire.
e. Most fire extinguishers are rated for more than one kind of fire.

2. Other Fire Equipment- Find out where other emergency equipment is located, such as:

a. First aid kit
b. Stretcher
c. Fire blanket
d. Respiratory protection

3. Fire Safety Checklist

a. Is your work area neat and uncluttered, free of trash?

b. Is wiring safely insulated and grounded?

c. Are flammable liquids stored safely in approved containers?

d. Are combustibles kept away from heat and sparks?

e. Are spills wiped up promptly?

f. Are tools, equipment and machinery clean and in good repair?

g. Do you smoke only in designated areas, and always use ashtrays?

h. Are the right extinguishers available?

I. Are exits and passageways clear and unobstructed?

j. Do you know the right evacuation procedure and the closest exit?

It's your responsibility to keep yourself, your coworkers and your work area safe from fire. Your job and your life may depend on it.

## E. Good Housekeeping is the Key to Fire Safety

1. Make it a part of your work routine to clean up as you go.

2. Put trash in the proper container.

3. Keep the floor clear of spills, trash, shavings, and filings.

4. Keep storage areas clean, with bins stacked in an orderly way.

5. Keep walkways and exists free of obstructions.

6. Make sure electric equipment is inspected and protected.

7. Keep your tools and equipment clean and well-cared for.

8. Ensure your clothing and personal protective equipment is clean and in good shape.

9. Fire extinguishers should be located nearby and ready to use.

## F. In Case of Fire

1. Report it! - Call 911 (On County Phones dial 9 first then 911 (9-911)

If you detect smoke or a fire:

a. Warn your coworkers.

b. Close any fire doors.

c. Report fires immediately, no matter what size it is. The longer you wait, the more dangerous the fire can be to you and your coworkers.

d. Stay calm, and evacuate the area or building. Go to your predesignated evacuation location. Wait for orders from your supervisor or the fire fighters.

e. When fire fighters arrive, direct them to the fire area. Warn them of any special hazards you know about.

f. Familiarize yourself with the fire emergency procedures for your facility before a fire.

g. Fight it! IF YOU ARE TRAINED If it is a small fire, you may try to fight it after you report it.

2. To fight a small fire:

- Use the right fire extinguisher.
- Break the seal and remove the pin from the fire extinguisher.
- Stay 8 to 10 feet from the fire.
- Press the lever and aim the fire extinguisher nozzle or horn at the base of the flames. Sweep the base of the fire.
- Continue with a steady stream, not short bursts.

Don't try to use a fire extinguisher unless you've been trained in which one to use and how to use it.

3. Exit the Area

a. If the fire is large and out of control, escape may be your best choice.

b. Move quickly, but don't panic.

c. Don't use elevators. You could get trapped inside if the power fails. Take the stairs instead.

d. Use the evacuation plan for your work area.

e. Head for the designated fire exit.

f. Use a secondary exit if the first is blocked.

g. Close doors behind you as you go.

## G. Classes of Fires and Type Fire Extinguishers to be Used

Fires are grouped into four general classes, each of which can be extinguished by a particular type fire extinguisher. Fire extinguishing agents are developed for use on specific classes of fires. This classification system makes it possible to determine what type fire extinguisher is suited for fighting a particular kind or class of fire. The four general classes of fires are "A", "B", "C", and "D", and are explained as follows:

1. CLASS "A" FIRES will be effectively and safely extinguished by water, foam, loaded stream and soda-acid type fire extinguishers, for fires occurring in WOOD, PAPER AND RAGS.

2. CLASS "A" FIRES occurring in FLAMMABLE LIQUIDS, such as GASOLINE and OTHER FUELS, SOLVENTS, GREASES OR SIMILAR SUBSTANCES, can be extinguished by using foam, Carbon dioxide (CO2) and dry chemical, and loaded stream type extinguishers.

3. CLASS "C" FIRES occurring in ELECTRICAL EQUIPMENT requires the use of a fire extinguisher agent that does not conduct electricity back to the operator when in use. The Carbon Dioxide (CO2) and dry chemical type fire extinguisher agents DO NOT CONDUCT ELECTRICITY AND WILL BE USED FOR EXTINGUISHING ELECTRICAL FIRES. NEVER USE water, foam or loaded stream type extinguishers on electrical fires.

4. CLASS "D" FIRES occur in COMBUSTIBLE METALS, such as magnesium, potassium, powdered aluminum, zinc, sodium, titanium, zirconium, and lithium. This fire is extinguished by special powdered compounds usually thrown by hand or dispensed by cartridge-type fire extinguishers with a specially compounded agent for combustible metal fires. It is not likely you will be required to fight this type fire in County work.

5. THE ABC DRY CHEMICAL-TYPE FIRE EXTINGUISHER can be used on all "A", "B", "C" classes of fires with safety. This fire extinguisher is widely distributed in County buildings, facilities, and area for use. Detailed instruction and training in use and operation of fire extinguishers should be provided to employees on a scheduled basis.

## 12.10 BOMB THREAT

### A. Objective

To establish a plan of action to be taken in the event of a bomb threat.

1. All employees have the responsibility to familiarize themselves with the following procedures and be prepared to react to a bomb threat in a calm, systematic and expeditious manner.

2. Employees should review bomb threat procedures yearly to familiarize themselves.

3. “Handling The Bomb Threat” telephone procedure cards will be placed under all office telephones, or posted in a conspicuous place near all telephones.

4. Upon the arrival of emergency responders a system of Incident Command is set up. The incident commander is in direct control of all activities within the facility. Until the Incident Commander gives the “all clear” the facility is off limits to all employee.

### B. How To Handle The Threat

1. An employee who receives a telephone bomb threat should obtain as much information as possible as indicated on the telephone card and then immediately:

   a. Contact 9-1-1 (You must first dial a “9”).....9-911

   b. Assign an employee to go door to door to notify all personnel to initiate evacuation procedures. (If the caller did not specify which area of the building the bomb is in all personnel must look around their area for unusual packages.)

   c. Look around your work area for unusual packages before evacuating.

   d. Complete “Handling the Bomb Threat” card after evacuating to the off-site assembly area.

   e. Notify Incident Command of the information filled out on your card.

2. Any employee who receives a written bomb threat should secure all materials, including envelopes or containers (handle as little as possible)

a. Call your supervisor if available to determine the following action

b. Contact 9-1-1 (You must first dial a “9”).....9-911

c. Assign an employee to go door to door to notify all personnel to initiate evacuation procedures.

d. Notify Incident Command of the location of the written threat.

3. Any employee who finds a suspicious container, package, envelope, box, etc.

a. Call your supervisor if available to determine the following action

b. Contact 9-1-1 (You must first dial a “9”).....9-911

c. Assign an employee to go door to door to notify all personnel to initiate evacuation procedures.

d. Notify Incident Command of the location of the package.

4. Do Not Touch Anything Suspicious

## C. Bomb Threat Evacuation Procedures

1. Each department shall establish a (safety) representative for all County facilities.

2. Each representative will locate an off-site assembly area no less than 300 ft from their facility.

3. The representative from each area shall be responsible to account for each employee within that section and account for their arrival at the assembly area.

4. If a bomb threat is called into a County facility without a specific location of the bomb a representative from the person receiving the threat shall be assigned to go door to door to notify personnel to initiate

evacuation procedures **and check your work area for unusual packages before exiting**. If an unusual package is in your specific area notify Incident Command immediately (room number, type of package, location of package, etc.)

5. Bomb threat evacuation routes shall be the same as fire evacuation routes posted on safety bulletin boards throughout County buildings.

6. All employees are to immediately evacuate the work area (take your purse & car keys) and proceed to their pre-assigned assembly area. ALL OFFICE DOORS ARE TO BE CLOSED AND LEFT UNLOCKED.

7. Employees will remain at the off-site assembly area until given the "all clear".

DO NOT USE FIRE ALARM TO NOTIFY EVACUATION UNLESS TIME OF DETONATION DOES NOT PERMIT. i.e., "A bomb is going off within two minutes."

DO NOT USE RADIOS OR CELLULAR PHONES AS A FORM OF COMMUNICATION DURING A BOMB THREAT(They can trigger a bomb device.)

## 12.11 ELECTRICAL SAFETY

The power of electricity can be dangerous if it's not used correctly. Electrical energy can damage property and ignite fires. It can also hurt and even kill.

Sound safety practices can help minimize electrical hazards and cut down on the risk of accidents. The hazard of electrical energy can't be eliminated, but it can be controlled through education and engineering.

The body can receive an electric shock if a grounded surface and hazardous electrical equipment is touched at the same time. The shock happens when current from the electrical equipment flows through the body to the ground.

The flow of electric current is what causes the shock. Just a small amount can hurt or kill. For instance, a small night-light with a 6-watt bulb draws .05 ampere, and even that small amount of current can be fatal.

### A. Electric current can injure when it flows through the body. Electric shock can cause:

1. Breathing to stop
2. Paralyze nerve centers

3. Nerves and muscle tissues to be burned
4. Heart beat interruption
5. Internal bleeding
6. Burns caused by electrical flashes or fires.
7. Injuries when machinery starts suddenly.
8. Falls from losing balance when shocked.

## B. Protecting Yourself

1. Only trained, qualified and authorized employees are permitted to work on electrical equipment.

2. An electrician should check equipment, tools, machines and lights to make sure they operate according to electrical code requirements.

3. Extension cords and appliance cords should be in good repair and properly rated for the way they're intended to be used. Always use 3-prong plugs.

4. Protect circuits with Ground Fault Circuit Interrupters where required.

5. Close electrical control panels and covering receptacle boxes.

6. Avoid touching water, damp surfaces, ungrounded metal and bare wires if you're not protected.

7. Avoid working in and around wet or damp conditions, equipment and electrical currents that aren't grounded, and wires that aren't insulated.

8. Always use equipment and tools the way they're intended to be used.

9. Report immediately any damaged or defective equipment, power hand tools or machinery.

10. Look for posted signs that identify electrical components and related hazards.

11. Protective Equipment/Procedures
Don't wear metal jewelry that might make contact with electric current.

12. Wear eye protection where required.

13. Wear rubber-soled shoes or boots on damp or wet surfaces.

14. Wear safety-approved rubber and leather gloves when you work with electricity.

## C. Prevent Electrical Fires!

1. Installation: Install electrical equipment the right way.

2. Inspect: Check equipment periodically to make sure it's working right and not overloaded.

3. Maintenance: Machines and equipment you work with should be maintained on a scheduled basis. Keep them clean and free from oil, dust and residue.

4. Communication: Report immediately any hazards, damaged and defective equipment, tools or machinery.

## D. Electrical Safety Checklist

1. Read warning signs. They're posted to inform and protect you.

2. Study the operation manual for tools and equipment before you use them, then follow instructions.

3. Light your work safely with extension lamps that have nonconductive handles, sockets and guards.

4. Take care of extension cords so they don't twist or break. Make sure they're out of the way, so they won't get walked on.

5. Disconnect cords by grasping the plug. Don't yank them out.

6. Watch for makeshift wiring that can cause shocks and fires.

7. Follow lockout and tagout procedures before you begin repairs. Move the switch into the "Off" position. Test equipment with meters. Are you sure the circuit is dead?

8. Use Ground Fault Circuit Interrupters.

9. Choose battery-powered tools wherever possible, especially when you're working outside.

10. Report immediately any defective or damaged equipment, machinery, tools or wiring to your supervisor.

E. Identify Hazards

1. Wiring: Connections and ground wires should be tight and free from breaks.

2. Insulation: There should be no worn spots or breaks that could cause shocks. Cords and extension cords should be in good shape?

3. Belts and Gears: Look for excess tension or binding that can cause a power overload.

4. Personal Protective Equipment: Hand and foot protectors should be kept in good repair and readily available.

5. Machinery: Look for overloading, too much vibration or motor obstructions.

6. Equipment - Make sure equipment and power hand tools work properly and are free of defects or damage.

**F. Electrical Safety Tips**

1. Make sure all electrical equipment is grounded.

2. Use Ground Fault Circuit Interrupters.

3. Use battery-powered tools wherever possible, especially when working outside.

4. Examine all tools and personal protective equipment before you use them.

5. Follow lockout and tagout procedures.

6. Use machinery and tools the way they're designed to be used.

7. Report unsafe machinery, tools and electric appliances. Don't use them until they've been repaired.

Electrical current can cause damage and injury and can be deadly. It's your job to stay safe when working with electricity!

## G. General Electrical Safety Rules

1. Electrical Wires and Extension Cords, treat all electric wires as live wires.

   a. Do not drag cords over sharp edges or run cables across aisles where hand trucks can damage them.

   b. Keep electric cables away from steam and hot water lines which can damage the insulation.

   c. Keep cords clean. Never allow an extension cord to lay in water, oil, grease or solvents. Wipe cords clean before using.

   d. Excessive scraping, kinking and stretching will cause damage to power cables causing premature failures and possible shock or burns.

2. Electrical Equipment

   a. Grounds provided on electrical apparatus shall not be disconnected or broken.

   b. Shock, no matter how slight, is a warning something is wrong. Danger tag the equipment and have it checked before re-using.

3. Electrical Repairs

   a. Ensure the current is off before attempting to make electrical repairs and lock it out.

   b. Exercise care in removing or replacing light or power fuses -- use fuse pullers.

   c. Live wire work is defined as work on wires, switches, starters, panels or other electrical equipment while the potential of 25 volts or more of electricity is present.

   d. No live wire work will be performed.

e. Unless you are an electrician, do not attempt repairs on electrical equipment. Call the experts.

f. All electrical installations will be installed and maintained in accordance with provisions of the National Electrical Code, NFPA.

g. Persons working around electrical circuits will not wear watches, rings, or other metallic objects which could act as conductors of electricity.

h. Personnel will treat low voltage systems with the same respect as high voltage circuits. Severe shock resulting in death can be caused by contact with lines carrying low voltages.

I. Care will be taken to avoid contacting low voltage lines when working on poles, ladders or in other high places; the shock may be sufficient to cause the workers to lose footing and fall.

j. The first rule to remember when required to perform maintenance or repairs on electrical equipment is: Turn the current off/Lock it out.

k. When it is necessary to wear safety gloves, only those designed for electrical work will be used. Gloves will be inspected for cuts, punctures or signs of wear. Never use safety gloves with voltages higher than the gloves' insulation rating.

l. To avoid cutting or tearing rubber electrical gloves, personnel will wear the leather liner over their safety gloves when actually working on high-voltage equipment.

m. All rubber goods used in electrical work will be given an annual voltage test except that rubber gloves in active use will be tested every 3 months.

n. Report to your Supervisor any leaking steam or water joints which are near any motors or other electrical apparatus.

o. If you find sparking or smoking motors or other electrical equipment malfunctions, turn off the power and report the condition at once.

p. Only qualified and authorized electricians will install and maintain electrical facilities and power lines. Two qualified employees will work together when high voltage circuits or energized circuits of any voltage are involved.

## 12.12 VEHICLE SAFETY

### A. Seatbelt Use is Mandatory

Safety belts improve your chances of traveling safely.

1. Many injuries and deaths occur when a person inside the car collides with:

    a. The steering wheel
    b. The dashboard
    c. The windshield and frame
    d. A door
    e. A window
    f. The roof
    g. Other passengers

2. A safety belt stops this "human collision" by holding you in place.

3. Safety belts keep you behind the wheel--ready to react, if necessary.

### B. Prevent Minor Injuries

1. How To Use Safety Belts Properly

2. A safety belt can only protect you if it's used and used properly.

**C. Adjust The Belt**: so it fits snugly over the hip bones. Your hips can absorb maximum force when the belt is adjusted properly. Make sure there is a maximum of one inch of space between your chest and the shoulder harness. Excess space will allow your head to hit the wheel, dash or windshield.

1. Provide Enough Belts for each member of your family and regular riders. (Each person needs a separate one.) Make sure belts are in proper working condition.

2. Ask Passengers in the front and rear seats to use their belts. Any unbelted person can be injured--or injure others--in a crash.

3. Don't Start The Car until all belts are fastened. Any extra belts should be secured so they won't cause injury in a crash.

## D. General Vehicle Safety Rules

1. General

ON A NATIONAL LEVEL, DEATHS FROM MOTOR VEHICLE ACCIDENTS TOTAL ABOUT 48,000 ANNUALLY. County employees operate vehicles of all types on rural roads, on state and national highways and on city streets. THERE ARE CERTAIN BASIC SAFE DRIVING PRACTICES YOU MUST FOLLOW TO AVOID ACCIDENTS.

a. Safe Driver: A driver of a County vehicle is responsible for operating it in a safe manner and is charged with complying with all driving rules and regulations and the safe driving practices prescribed by their Supervisor.

b. Valid Florida License: Only trained and approved personnel possessing a valid State of Florida driver's license will be allowed to operate County vehicles.

c. Commercial Driver's License (CDL): An employee driving vehicles that require specific CDL license can not perform their driving responsibilities without the appropriate classification of COL.

d. Safety Belts: The wearing of Safety Belts while driving a County vehicle IS MANDATORY.

e. County Employees only: At no time is a County vehicle to carry riders or passengers other than County employees or other authorized personnel in the capacity of performing County related duties.

f. Overloading with passengers: Except in cases of emergencies, no more than two employees shall ride in a truck or tractor cab.

2. Vehicle Accident: If a County vehicle is involved in an accident;

a. Immediately notify your Supervisor

b. Notify the appropriate law enforcement agency.

c. In case of a serious accident involving personal injury, call an ambulance.

d. County employees must comply with all Drug-free-workplace policies in the event of an accident.

e. Do not discuss the accident with anyone but law enforcement, your Supervisor or County investigative personnel.

f. Do not move the accident vehicle or equipment until so instructed by the police.

See also Chapter 6

3. Safe Driving Practices

a. CONCENTRATE ON DRIVING. A good driver dismisses his worries or anger when he enters the vehicle.

b. Never take drugs or strong medications before driving. Drugs, illness or fatigue may affect your ability to judge distances, speed and driving conditions and slow your reaction time. Employees must comply with the Drug Free Workplace Guidelines for drugs that may impair vision or judgment while operating vehicles.

c. NEVER PRESS FOR THE RIGHT OF WAY - Always limit your vehicle speed so that there is a clear space and time for an emergency stop. High speed drivers have less time to think and act in an emergency and a far greater distance is required to stop.

d. SLOW DOWN in dense traffic or thickly settled areas.

e. Adjust speed for poor visibility and weather conditions.

f. Smoking is prohibited in County Vehicles.

g. SLOW DOWN at intersections or curves. USE APPROPRIATE SIGNALS well in advance of any action. Signal early and slow down gradually.

## E. Vehicle Inspection by Operators

All vehicles shall be inspected by the operator prior to its use to assure all parts, equipment and accessories are in safe and proper operating condition and free of any apparent damage or defect that, in the opinion of the operator of a duly appointed individual making the inspection, may cause failure while in use.

1. Daily: Systems Check

   a. Service brakes, including trailer brake connections, if necessary. Test brakes after riding through water or puddles or driving during heavy rain.
   b. Parking System (hand brake).
   c. Emergency stopping system (brakes).
   d. Check coupling devices.
   e. Seat belts.
   f. Operating control (oil pressure gauges, etc.)
   g. Safety devices including horn, tires, steering mechanism, and windshield wipers.

2. Daily: Visual Inspection

   a. Does your vehicle sit level?
   b. Are there any fresh oil or fuel spots underneath?
   c. Is there any broken glass?
   d. Are there wet spots where water has been leaking?
   e. Look for any change in the appearance in the vehicle since you last saw it.

3. Weekly: Pre-start check

   a. Check oil in engine crankcase and fill as necessary.
   b. Check water in radiator and battery and fill as necessary.
   c. Raise hood or cab if necessary to check all belts for slippage and/or excessive wear.
   d. Lower and secure hood or cab.

4. General Check

   a. These requirements apply to equipment such as lights, reflectors, defrosters, fire extinguishers, tire jack, etc., where such equipment is installed.

   b. Drivers will also wipe off windshields, side and back glass, lights and reflectors when conditions warrant.

   c. No vehicle or equipment shall be put into services until any defect or safety violation likely to cause an accident or breakdown has been corrected.

F. Parking

1. Vehicles should be parked off the traveled way where they will not interfere with the normal flow of traffic and will not obstruct the view of other drivers.

2. When parking, remove the ignition key, put the transmission in park or the lowest gear and firmly set the parking brake. Turn the front wheels toward the curb, or chock at least one rear wheel if parked on a hill.

3. Do not leave a vehicle running without being in the drivers seat (except diesel fuel vehicles performing a task or with Power Take Off (PTO) devices.

### G. Drive Defensively

1. While driving in city traffic, be alert for mistakes or unexpected actions of others, drive more slowly and KEEP ALERT for pedestrians and cross traffic.

2. Drive at a speed which permits stopping within the visibility range of your headlights. Keep headlight beams depressed to reduce reflected glare caused by fog, rain or wet pavement.

## 12.13 POISONOUS SNAKES, SCORPIONS, AND SPIDERS

### A. General

1. Most snake bites are due to handling and carelessness. Use common sense and think when working in the field and under brush. Use a machete or transit rod to push through underbrush. 98% of all bites are on extremities, such as hands, arms, legs and ankles. Use extreme care when you go into heavy brush where the ground is not visible. When in such places, wear heavy boots or leggings, the same for being around marsh ponds, water lilies and tall grass. Never removes shoes in the woods. 50% of bites received are when barefooted or in tennis shoes.

2. Most snake bites result from handling than other careless actions. Approximately 45,000 snake bite accidents occur each year in the United States. Venomous, or poisonous snakebites account for 20% of that total. Although mortality is low, the high incidence of crippling injuries to the bitten extremity (mostly by pit-vipers -- rattlesnakes, water moccasins, and copperheads) is of great concern. More than half the cases of venomous snake bites take place in Texas, North Carolina, Florida, Georgia and Louisiana.

3. Snake Bites

a. Snake bites cause many complications and prolonged illness. The most important step is to get the snake bite victim to the hospital as soon as possible. If possible kill the snake and take it with you to the hospital.

b. Keep the victim from moving around. Keep the victim as calm as possible preferably in a lying position and prepare for immediate transportation to the hospital. Do not give the victim any alcohol, sedatives, aspirin, or any medicine containing aspirin. CARRY THE VICTIM TO THE HOSPITAL. DO NOT LET THE VICTIM WALK.

## B. Precautions

1. Always wear pants outside boots, never inside and try to wear heavy material such as Levi's or dungarees, as heavy material has been known to deflect the aim of striking fangs.

2. Never place your hands into heavy underbrush or wood piles without carefully looking first.

3. When sitting, always look down and behind you first. A snake bite on the rear is the most dangerous, due to the inability to apply a tourniquet.

4. Never step over a log or tree lying on the ground, but step on the log or tree and view the other side first. Never wade across a stream full of hyacinths without probing ahead.

5. Never attempt to catch poisonous snakes or reptiles, as many workers in Florida do. Leave snake catching to Herpetologists and experts.

6. Around the home, clean up trash piles, weedy lots, wood and concrete piles, cut down palmettos.

7. On construction jobs or clearing activities, check your equipment, clothing and materials left on the ground or in trucks, poke with a stick or tool to be sure no snakes are hiding. Always be careful when first going to your tractor and parked equipment left beside roadsides. Rattlesnakes like to coil under and around tractors and mowing machines since they like the heat and warmth of the engine left from the night before.

8. When staking or surveying in the field, always avoid gopher holes, use your boot heel to cave in the front of the hole.

## C. Snakes To Beware Of

There are hundreds of harmless and beneficial snakes in the woods of Florida that keep down our rodent population. Only four are poisonous: Rattlesnakes, (3 sub-species). Pygmy ground and Eastern Diamondback are found throughout the state. The Canebrake Rattler is found in northwest Florida. Cottonmouth - statewide. Copperhead - northern Florida (rare), and the Coral Snake - found statewide.

Copperhead and Pygmy Rattlers are not usually fatal, however, use extreme care, and go on the assumption that they are fatal. Only the Eastern Diamondback, Cottonmouth, Canebrake Rattlesnakes are extremely dangerous and are fatal. The Coral Snake which is the only neurotoxic reptile, is the most fatal of all the poisonous snakes. No insect or lizard is fatal around Florida, so get to know the four poisonous snakes by identity. Poisonous snakes mostly travel early in the morning and late evenings. Each harmless snake killed leaves room for another poisonous snake. Do not kill harmless snakes.

Most Common Florida Snakes:

1. EASTERN DIAMONDBACK RATTLESNAKE BITE

   This is the largest and the most dangerous in the US Severe bites cause many complications and prolonged illness. Whether a direct bite, puncture, or slight scratch, the employee should to the hospital for routine observation and treatment, if necessary. Always kill the snake and take it to the hospital if possible.

   For treatment when bitten, immediately tie a constricting band above the bite, lightly, 15 minutes on and 5 minutes off. Move the constrictor as the swelling increases.

   Keep movement at a minimum. If coworker is bitten, apply first-aid, call for help in obtaining transportation to the hospital. Bring the transportation to the victim if at all possible, to minimize movement.

2. PYGMY RATTLESNAKE BITE

   This snake's bite is rarely fatal to man. The bite is painful and will destroy surface tissues.

   Treatment is almost the same as with the Eastern Diamondback, using constrictor, small surface cut, suction and ice. Pack in ice as soon as possible. Use your chemical ice pack. Always kill the snake, if possible, and take to the hospital, as often times the Pygmy is mistaken for a small Eastern Diamondback.

3. FLORIDA COTTONMOUTH AND FLORIDA COPPERHEAD BITES

Do not use constricting band (tourniquet). Apply suction for 30 minutes and cut the surface tissue only the same as the rattlesnake family. Physicians caution against capillary destruction, so keep circulation moving through the bitten area, due to fatty acids, high iodine content and enzyme action. Get victim to a hospital as quickly as possible.

4. EASTERN CORAL SNAKE BITE

Immediately IMMOBILIZE the victim completely. If not possible to immobilize the victim, then completely splint the bitten area well above and below the bite, and rush to a hospital. Kill the snake if possible, and take it to the hospital, as often times the Scarlet Kingsnake and Scarlet Snake are mistaken for the neurotoxic Coral. Both of these have red noses where the Coral Snake has a black nose; also, only are the Coral Snake has red bands adjacent to yellow.

## D. Treatment Information

Treatment with Wyeth Coral Snake antivenom, which is distributed by either State Health Department Poison Centers or Ross Allen's Reptile Institute free of charge and at all hospitals upon request. The Florida Highway Patrol will relay across State in the event of a bite.

Even the slightest scratch or break of the skin should be hospitalized, since if the patient feels no pain with a Coral snake bite, he may think he had not been bitten seriously. Coral snake venom is not painful as is the Rattlesnake and the Cottonmouth venom, and the effects are not noticed until numbness and a coma suddenly hit approximately two hours later.

Cleanse the area with germicidal soap and water to remove any venom on the skin. Place constrictor above the bite in the same manner as a Rattlesnake bite, lightly for 15 minutes on and 5 minutes off, and suction for 30 minutes, even though there is no evidence of venom if there is a fang puncture. This general information applies only to treatment given by the physician at the hospital. **Your responsibility is to provide first aid and get the victim to the hospital without delay.**

## E. Field First Aid For Snakebites

Very few people die from snakebites. However, anyone who is bitten by a snake should get medical help quickly. If EMS is more than 30 minutes away, transport the victim to medical care in another vehicle if possible.

## F. Bites And Stings

Reassure the victim and keep him or her still until EMS arrives. Keeping still will slow down absorption of the snake venom, as will keeping the bitten area below the level of the heart. If the bite is on an arm or leg, splint. Be alert to prevent shock.

Try to remember what the snake looked like, so you can tell EMS.

1. SCORPIONS

Scorpions occur throughout Florida and should be easily recognized by their large pincers near the head and by their tin tail carried over the back. They range in size from 1 to 5 inches, depending on the species, with colors ranging from yellowish-brown to black. The arched tail ends in a bulb-like poison gland equipped with a stinger. And that's what can hurt you. Forget those pincers. They are used only for holding food, which might be small insects, spiders, centipedes, other scorpions or earthworms. Scorpions hide under stones, bark of fallen trees, boards, firewood or other objects that lay on the ground.

Although individual reactions to the stings may vary, it is important to seek medical assistance immediately if a person, particularly a child, has a severe reaction to a scorpion sting. Ice packs or alcohol swabs applied to the sting area are normally the suggested first-aid treatments.

Chemical control for scorpions is not particularly effective. If you encounter one outdoors, hit it with a rock. If you see one indoors, step on it, but for God's sake, be sure you're wearing shoes!

2. SPIDERS

The ***BLACK WIDOW SPIDER*** is found outdoors in all kinds of protected cavities. Around homes she prefers garages, gas and electric meter boxes, furniture and many other unbothered places. A Black Widow bite feels like a pin prick and sometimes is not even felt. Usually, a slight local swelling and two red dots surrounded by local redness indicate the location of the bite. Pain becomes intense in 1 to 3 hours and may continue up to 48 hours. Symptoms include abdominal pains, a rise in blood pressure, nausea, profuse perspiration, leg cramps, tremors, loss of muscle tone and vomiting. The toxin also causes breathing difficulties and sometimes unconsciousness.

***The BROWN RECLUSE SPIDER*** is a nonaggressive creature that spins a white or grayish, nondescript web. Its body and legs cover an area about the size of a quarter and its color varies from an orange-yellow to

dark brown to almost black. The most distinguishing characteristics of this spider are its eyes and its back markings. It has three pairs of eyes arranged in a semicircle on the forepart of the head. The eyes also form the base of a violin-shaped marking on its back. The Brown Recluse often lives around human dwellings and is found in bathrooms, bedrooms, closets, as well as under furniture, behind baseboards and door facings or in corners and crevices. It also seems to prefer cluttered garages. Sometimes people are bitten while asleep; others may be bitten by spiders in stored clothing. Usually the bite causes a stinging sensation and then intense pain. Within 24 to 36 hours, a systemic reaction may occur, characterized by restlessness, fever, chills, nausea, weakness and joint pain. The bite also produces a small blister surrounded by a large congested and swollen area. The venom usually kills the affected tissue, which gradually sloughs away and exposes underlying tissue. Healing may take 6 to 8 weeks, leaving scars that might require plastic surgery to repair.

If you are bitten by either of these spiders, seek medical aid immediately.

## 12.14 POISONOUS PLANTS

### A. General

There are more than 60 varieties of poisonous plants in the United States which may cause irritation to the skin. Plants that cause epidermal irritations such as redness, rashes, swelling and localized pain, normally have saps that are toxic when they are rubbed on the skin of sensitive people.

### B. Poisonous Plants In Our Area:

Crown of Thorns
Candelabra Cactus
Pencil Cactus
Poinsettia
Mango
Poisonwood
Aralia
Lime Trees
Oyster Plant
Purple Queen
Century Plant
Elephant's Ear
Giant Elephant's Ear
Golden Pathos
Florida Holly
Manchineel

Poison Ivy

**C. Plants Which Are Toxic When Eaten:**

Yellow Allamanda
Castor Bean
Dumbcane
Rubber Vine
Angels Trumpet
Sandbox Tree
Oleander (Smoke from burning this plant is poisonous)
Physic Nut
Bellyache Bush
Coral Plant
Chinaberry
Ochrosia Plum
Chalice Vine
Yellow Oleander
Manchineel
Lantana

**D. Plants That Cause Respiratory Problems**: which are similar to asthma symptoms, include:

Florida Holly
Punk Tree (Melaluca)

The above is not a complete list. Some individuals may suffer no adverse effects from contact with plants on this list.

# STOPPED HERE LEAVE PAGE BREAK TO INSERT POISION PLANT INFO

## E. PRECAUTIONS

It is not necessary to come in direct contact with these plants to get poisoning. Pets may spread plant poisoning by rubbing against the plant and getting the substance on their hair. You may get the poison from touching the animal. It may also be transmitted from person to person by contact with clothing that has rubbed across the plants. Shoes pick up the poison by contact and may retain the poison for a year or longer.

In some cases, persons have contracted dermatitis from working on a car, which had been driven through areas where poisonous plants were growing.

The best way to prevent plant poisoning is to learn to recognize the plants that cause it and stay away from them. The poison is rapidly absorbed and fixed in the skin so that it cannot be removed. When a person knows he has brushed against or burned one of these poisonous plants, it is recommended that he immediately wash the affected area with soap and water. Do not use a brush or other rough material.

1. A commercially available product "TECNU" is very effective even if used eight hours after contact.

   Follow the wash with an alcohol sponging. This procedure may prevent skin inflammation in those who are sensitive to ivy poisoning.

   When you know you are going into an area where you are likely to come in contact with these plants, as much of the body as possible should be covered. Long sleeves tucked into heavy leather gauntlet gloves, slacks or trousers tucked in boots or leggings, shirt collar turned up or scarf tied around the neck. Do not touch the gloves or clothing, since the irritating oils have been known to remain on clothing for as long as a year. Clothing should be dry-cleaned because soap and water are not always effective in removing the poison. Warn the person doing the dry cleaning that the clothes have been exposed to poisonous plants.

2. Although creams and ointments are used in attempts to prevent poison ivy irritation by covering exposed skin, these measures are of doubtful value and of a temporary nature. Use protective clothing and gloves.

   Persons who are extremely sensitive to plant poisoning and whose employment brings them in contact with poison plants should consult their physicians for whatever help is available. Persons who develop more than minor areas of ivy dermatitis should be under medical care.

## 12.15 LIGHTNING STRIKE INJURY PREVENTION

It is important not to wait for the first lightning flash to determine whether or not there is a danger. The approach of an impending storm should be a cue to take safe shelter.

**A.** If you are caught in a storm while driving an automobile, remain inside. The metal body around you protects you. A common misconception is that the tires insulate the car. this is false: lightning can and will strike automobiles. The electrical charge is transferred through the metal body, through the suspension and arcs to the ground completing the discharge and dissipation process.

**B.** If you are outdoors and lightning is impending, get indoors to a safe place. Do not take cover under a tree. Stay away from fences. The metal fence is a very good conductor of electricity.

**C.** If you are on the water, get below deck or in the cabin. If the boat does not have a cabin, crouch down in the middle of the boat. If at all possible, make shore before the storm reaches.

**D.** If you are indoors when a storm approaches, stay out of the shower or bath. Both of these are connected to the metal vent pipes that run to the roof. Do not use the phone unless it is an emergency. Many times phone lines are connected to the electrical poles outside the house. These poles are favorite targets of lightning. Telephone lines serve as a conductor for the resulting current.

**E.** If caught out in the open without protective shelter, avoid being at the highest point. Assume a crouched position with both feet close together. Do not lie flat on the ground. A lightning strike will set up ground currents that will travel through the body with enough energy to kill. Lightning can strike when a storm is not apparent. If a build-up of electrical current is felt in your body (hair standing up, chill up back etc.) the atmosphere is attempting to dispose of the charges through you, crouch immediately.

REMINDER: LIGHTNING DOESN'T ALWAYS COME FROM THE SKY IT CAN BE CONDUCTED UP FROM THE GROUND INTO THE ATMOSPHERE.

**F.** If someone is struck by lightning, a heartbeat and breathing are often absent. Do not assume the victim is dead. Apply prompt cardiopulmonary resuscitation (CPR) and get immediate medical attention.

## 12.16 MACHINE SHOP OPERATIONS

## A. Machine Shop Safety

1. Use only those machines and equipment that you are qualified and authorized to use and wear eye protection at all times where eye hazards exist.

2. Before turning on a machine, make sure everyone is clear.

3. ALL GUARDS AND SAFETY DEVICES MUST BE IN PLACE and adjusted properly before operating a machine.

4. DO NOT LEAVE AN OPERATING MACHINE UNATTENDED.

5. Machines must be stopped and power turned off before changing chucks or loading heavy items into the chucks. Make sure the chuck is tight and the chuck key is removed before restarting the machine.

6. Never brake or slow down a machine with your hands. Turn off the power and WAIT. It will stop itself.

7. KEEP YOUR MACHINE CLEAN. Remove chips with a brush or stick, not your hands.

8. Keep your area clean of oil, solvents and coolants. Slippery floors and machinery do not mix.

9. Do not try to prove how strong you are. Get help to lift or move heavy objects or use mechanical lifting equipment.

10. Do not wear neckties, loose or ragged clothing, long sleeves, gloves or jewelry. They are hazardous near machinery. If not contained long hair can be hazardous around rotating machinery. If the operator must lower his head to get a better look, loose hair may get entangled in the rotating parts and cause scalping. Wear a hat, hair net, tie it back, OR GET IT CUT BEFORE THE MACHINE DOES IT FOR YOU!!

## B. Grinding Wheels

1. Never use a grinder without a wheel guard. A broken wheel makes an excellent unguided missile.

2. Safety glasses without side shields are not sufficient protection when grinding. WEAR A FACE SHIELD.

3. Cracked grinding wheels will be replaced, wheels dressed and inspected periodically.

4. Proper clearance will be maintained between the wheel and guard.

5. Tool rests will be in place and clearance between the tool rest and wheel will be adjusted to measure one-eighth of an inch from the wheel.

## C. Drill Press

1. BE SURE that the work is securely bolted or clamped to the table, or held in a vise or jig. DO NOT TRY TO HOLD IT BY HAND.

2. BE SURE that the table clamps are properly tightened so that the table cannot move.

3. When setting up or removing work, SHUT OFF POWER, even though the table or arm has been moved out of line.

4. When removing a drill from a socket clamped to the chuck, LOWER THE SPINDLE so that the end of the drill is near the table BEFORE LOOSENING THE SOCKET.

## D. Lathes

1. When handling heavy chucks or face plates, use a lifting device.

2. If there is no lifting device near your lathe and the chuck or face plate is too heavy to be handled by one person, GET HELP.

3. Always start the chuck beyond the circumference of a chuck. If necessary, change or reverse the jaws.

4. After setting up or taking work out of the chuck, immediately remove the wrench from the chuck.

5. When doing work on centers, be sure that the work is counter-sunk deeply enough so that it cannot be thrown out of the lathe.

6. See that the tail stock is fastened to the lathe bed and the dead center is properly lubricated.

7. Use only safety type lathe dogs or those with flush set screws.

8. DO NOT HOLD emery cloth in your hand while polishing revolving work. Use a wood block or jig for this purpose. Only use files with handles.

9. When machine rods or bars that project beyond the head stock, enclose the projecting portion in a stationary pipe supported on a suitable stand.

10. The machining of irregularly shaped castings, crankshafts, and similar objects where the tool is not in contact with the work during the entire revolution of the chuck, IS EXTREMELY HAZARDOUS. The operator MUST BE CONSTANTLY ON THE ALERT to avoid being caught or struck by the work.

11. Do not knock chips off the tool or lean over the lathe to inspect the work while it is running.

## 12.17 PERSONAL PROTECTIVE EQUIPMENT

**A. Gloves**: On operations where gloves are necessary, wear the proper type specified by your Supervisor.

**B. Hard Hats**: Hard hats are provided by the County to protect your head against the danger of head injury from falling or flying objects, or from electrical shock and burns. Be sure your hat is in good condition.

If an area is designated as "HARD HAT AREA" all persons entering these areas shall be required to wear a hard hat.

### C. Respirators

Respirators are designed to filter the air you breathe. Various types of respirators are provided for your protection. These are filter-type respirators for employees working in dusty areas or handling dust-producing materials. They are also required when engaged in paint spray operations. A respirator is not a substitute for a gas mask or self-contained breathing apparatus. Check with your foreman for more specific information.

### D. Air Breathing Equipment

1. Self-contained air breathing equipment, with the air contained in cylinders as part of the equipment, is used for rescue work or short term work in excessively contaminated atmospheres.

2. Air-line breathing equipment with the air source obtained from a shop air system or compressor is used for long term work in contaminated

air atmospheres, and in areas where it is impossible to use self-contained air breathing equipment because of space limitations.

3. All personnel required to wear air breathing equipment must be trained in its proper use.

Air breathing equipment must be inspected in accordance with manufacturers recommendation. Prompt repair will be accomplished on all equipment found to be defective.

## E. Foot and Toe Protection

The appropriate foot protection is required for work functions that include lifting heavy objects that may be dropped on the feet, electrical protection, piercing protection, chemical protection, fire protection and working in areas that are designated as high hazard areas and require foot protection i.e.; around fork lifts and rolling stock.

The wearing of sandals or tennis shoes is not allowed in high hazard areas. Safe and slip resistive shoes should be encouraged by office personnel and high-heel shoes discouraged if at all possible. Many slips, trips, and fall injuries are related to high heels, sandals and shoes with slippery soles.

## F. Safety Glasses, Goggles and Face Shields

Goggles or face shields should be worn by all employees performing work that exposes them to eye injury. Employees not performing work, helpers or visitors who are in the area of exposure also should always wear eye protection.

Hazard areas will be identified. Eye protection will be required in these areas. Sufficient visitor goggles or face shields will be available for protection of persons entering these areas and will be of the type required to guard against the existing hazard. This requirement will be strictly enforced.

Welding hazards can be easily controlled by use of suitable personal protective equipment and proper work procedures. Welding goggles or helmets must be used. When helmets are used, safety glasses must also be worn whenever secondary finishing is done on the work piece. All welding operations should be required to have "hot work permits."

Appropriate goggles with filter lenses shall be used for such operations as oxyacetylene welding, cutting, lead burning, and brazing. Where eye injury is increased by grinding, buffing, sandblasting, etc., additional precautions such as side shields for safety glasses must also be employed.

Do not take chances with eye injuries -- contact your Supervisor or first aid person immediately upon receiving an injury. Do not rub your eyes when a foreign object is in them.

### G. Personal Clothing

If uniforms are not provided, the clothes you wear is a personal matter. Clothing must adhere to the requirements set forth by the department for the position. The minimum work clothing shall consist of a T-shirt and trousers, or their equivalent, for all employees.

Clothes can be a safety hazard if they are loose or ragged. The material can get caught in moving machinery and cause serious or fatal injury. Clothing that is not clean is not only unsightly but a health hazard, causing skin infections and irritations. Clothing furnished by the County must be kept in a clean and presentable condition.

## 12.18 POWERED INDUSTRIAL TRUCKS, FORKLIFTS, HAND TRUCKS

### A. Forklift Trucks

1. All forklift operators must be certified by a qualified instructor.

2. When using forklifts, do not operate in excess of speeds that allow full control of the equipment and safety of the load.

3. Do not permit any part of the load to obstruct vision while driving.

4. Only the driver shall ride on the forklift.

5. Riding the forks is strictly prohibited.

6. Watch out for pedestrians. Sound horn at blind corners.

7. Do not drive with greasy hands.

8. Lift and lower loads smoothly and never carry loads in an elevated position.

9. Power trucks shall not be left unattended without first lowering the platform or forks, shutting off power, neutralizing controls, setting brake and removing the ignition key.

10. When entering other vehicles with forklift trucks, the wheels of the vehicle shall be chocked to prevent any movement.

## B. Hand Trucks

1. When using two-wheel hand trucks -- do not overload. Make sure the load is stable so the weight is on the axle, not the handle.

2. The same warning against overloading applies to the four-wheel hand truck. Never pile a load so high that it might fall or prevent you from seeing ahead.

3. Hand trucks are generally meant to be pushed, not pulled, with the exception of the four-wheeled truck with swivel axle and tongue which is designed for pulling, and the motorized hand truck which can be run either way. Never pull a four-wheel truck down an incline. If it gets out of control it can pin or run you over.

## C. General Requirements

1. Only qualified personnel trained in the operation of forklifts and other powered industrial trucks are authorized to operate this equipment.

2. Prior to operation of powered industrial trucks, the operator shall examine his vehicle and if any item is found to be defective or in need of repair the item shall be corrected prior to use. There will be no exceptions.

3. Start and stop this equipment gradually and slowly. Always look around before starting. Avoid quick turns.

4. Slow down at cross aisles, sharp curves, ramps, dips, blind corners, on wet, slippery or rough floors, in congested areas, and when vision is limited or obstructed. Always drive at moderate speed.

# 12.19 MOTOR VEHICLE MAINTENANCE SHOPS

## A. General

The normal activities of motor vehicle maintenance shops present numerous hazards to maintenance personnel. It is essential that adequate safety standards be prescribed and observed by all shop personnel to promote efficiency and reduce the possibility of personal injury and property damages.

1. Keep repair shops adequately ventilated to protect against exposure to hazardous concentrations of carbon monoxide gas. Move any equipment with the engine running to the outside or attach a hose to the muffler leading to the outside.

2. Always work under adequate illumination at work benches, lubrication pits and other shop work areas.

3. Maintain working area free of trash scraps and other tripping hazards.

4. Set aside time for shop clean-up prior to the end of each work day.

5. Protective equipment shall be worn as required.

6. Personnel will avoid wearing extremely greasy, oily or dirty clothing.

7. Do not wear rings or other jewelry when working on motor vehicles, when servicing batteries, when operating rotating machine shop equipment, or when working on, or around, electrical equipment.

8. To reduce fire and slipping hazards, do not allow floors to become saturated with oil or other flammable materials. Use absorbent material and clean up as quickly as possible.

9. Never smoke while fueling equipment and do not allow anyone to smoke in the immediate area.

10. Use a safety solvent (combustible rather than flammable) provided for cleaning parts. Never use carbontetrachloride, gasoline, or any other hazardous materials for this purpose. To use other than approved safe solvents will expose you and your coworkers to the danger of burns or lasting health problems.

11. Be sure fire extinguishers are available and that there are no obstructions which will prevent your access to them.

12. Do not carry sharp pointed tools in your pockets.

13. Do not smoke in areas where not allowed.

14. Lockers and washrooms will be maintained in a clean condition and provided with proper towels and soap.

## B. Safety in Maintenance Activities

1. Air compressor storage tanks will be drained at least once a day by opening the drain valve and allowing water and water vapor to escape.

2. All belts, pulleys, gears, chains, sprockets, or any moving parts on air compressors will be completely enclosed with a guard.

3. Only persons properly trained in the operation of shop machines will be authorized to use them.

4. Do not drain gasoline, oil or other liquids and materials in areas where they are likely to go into storm sewers and sewage systems. This is an extremely hazardous practice. It can cause fire, explosion and extensive problems in sewage plant operation. Drain petroleums into drums or buckets for proper disposal.

5. Compressed air shall not be used for blowing dirt from hands, face or clothing. Be sure the nozzle is designed for a maximum of 30 psi when used for cleaning. Eye protection shall be worn.

6. All compressed gas cylinders will be racked and secured in carts or to walls and posts to prevent being accidentally knocked over. Valve protection caps shall be installed on all cylinders not in use. This requirements also applies to cylinders transported in vehicles.

7. All shop hand tools will be frequently inspected for defects and any defective tools found will be repaired or replaced as soon as possible.

8. Alligator type hoods on some vehicles have caused injuries when they dropped while the mechanic was working on the engine. A prop of safe design should be used to prevent this type of accident.

9. When a vehicle is jacked up or hung up on chain hoists and when a mechanic is making repair underneath, it will be blocked with pyramid jacks, trestles or substantial wood blocking.

10. No one will be permitted to work inside a vehicle that is blocked up when another person is working under the vehicle. Mechanics working under vehicles will ensure that their legs do not protrude in aisles, exposing themselves to injury and creating a tripping hazard.

## C. Tire Repair

1. Tire repair work is hazardous if proper precautions are not taken.

2. Avoid strains and hernia when handling heavy tires by getting help placing tires on dollies or using lifting equipment.

3. Do not use extension handles or pipe (cheaters) on wrenches for removing lug nuts. Use air operated wrench whenever available. Use a penetrate oil on nuts that are "frozen" then, if a wrench is used, be sure it is the proper size. Tapping the wrench lightly will aid in freeing the nut.

4. Always use a safety cage when inflating tires equipped with lock rings. When inflating the tire, turn your face away from it. Never hold the tire between your legs. Always stand to one side when applying air.

## D. Elevating Type Lifts

1. Elevating lifts should be provided with a "safety leg". Tripping this leg to lower lift will be done by a procedure which will not permit a worker to get under the lift.

2. All lifts will be provided with stop chocks.

3. No one will be permitted to remain in a vehicle when it is being lifted.

4. Rocking of lifts during the lubrication process will not be permitted.

5. Regular inspections will be made of lifts and their hydraulic cylinder and lines to ensure they are in safe operation condition.

## E. Above Ground Maintenance Racks

1. Above ground racks used for maintenance and lubrication work will be provided with guard rails and steps or stairs.

2. The rack and areas below will be cleaned of grease, oil and other slippery materials when in use. Gasoline or other flammable solvents will never be used for cleaning maintenance racks. Use only approved cleaning materials. If caustics are used, suitable protection shall be worn.

3. Sufficient lighting will be provided for workers. Portable or permanent lighting will incorporate guards for protection. If lights are to be used or installed where explosive vapors are likely to be present, they shall be of the explosive-proof type.

## F. Hoisting and Lifting Equipment

1. Never overload hand or electrically operated hoists. The rated load will be legibly and permanently marked in a prominent location on all hoist and lifting equipment. (Jacks supplied with vehicles are excluded.) Rated load limits shall not be exceeded.

2. Standard hand signals are used if there is an operator and a helper.

## G. Specialized Shop Work

1. Welding, painting, undercoating and battery work will be conducted in separate, isolated shops designed for this purpose.

2. Only trained and authorized personnel will operate specialized testing machines and equipment.

3. Eye protection shall be worn by maintenance personnel using permanently mounted, or portable, grinding and cutting tools that produce flying chips or dust.

4. When using air operated tools, be sure it is of the size and type suited for the job. Pay attention to your footing to prevent slipping. Ensure that the tool is secured in a manner which will prevent it falling if working above someone.

5. When installing a cable use a bar, not your hands, to guide it.

6. Use substantial wooden blocking when working in or under a scraper while the bowl or apron is raised on the blade of a bulldozer.

7. Be sure that all guards have been replaced before operations of any equipment which has been repaired or adjusted.

8. Proper protective equipment shall be worn when boiling out radiators.

9. All electric machines, motors, portable electric tools and equipment will be properly grounded.

## 12.20 CONSTRUCTION, BUILDINGS, AND GROUNDS MAINTENANCE

### A. Building and Grounds Areas

Unsafe conditions in buildings and ground areas require repair and maintenance to render them safe for employees and the public. Report all unsafe conditions to your Supervisor for correction without delay.

### B. Ladders

1. A ladder should be placed so the distance from its foot to the wall is one-fourth the length of the extended ladder.

2. Never separate the parts of an extension ladder. Use of the top section as a ladder is prohibited.

3. Do not carry heavy or bulky objects up or down a ladder. Always use a rope or hoist.

4. Face the ladder when going up or down. Always look up when you are going up a ladder.

5. Move the ladder as the work progresses. Don't work any further than an arm's length from the ladder.

6. Only one person on a ladder at any one time.

7. Ladders will not be used as skids, braces, scaffold members, or for any other purpose than that for which they are intended.

8. Never climb a ladder with greasy, muddy, or otherwise slippery hands or shoes.

9. Do not use metal ladders in areas where exposure to electric wires or equipment is possible.

## C. Scaffolds and Platforms

1. Make provisions for a uniform level base and compacted footing before installing upper levels.

2. Tie into the structure or building to prevent tipping.

3. All side braces (cross-bracing) shall be installed on tubular welded frame scaffolding.

4. Only scaffold boards in good condition are to be used on scaffolds. Each scaffold board must overlap the scaffold sides by a minimum of six (6) inches.

5. Never stand on the overhang portion of a scaffold board.

6. Guard railing shall be installed on scaffolding when four (4) feet high or more.

7. Do not leave tools or materials on scaffolds or platforms where they may fall or cause a tripping hazard.

## D. Excavations and Trenching

1. The sides of excavations will be properly and substantially braced and shored, or the sides will be sloped away from the excavation, or a trench box of substantial construction may be used.

2. The type of shoring systems to be used will be determined by soil conditions, vibrations in the area, stresses imposed by nearby buildings, and other pertinent conditions.

3. Where excavations are to be made below adjacent foundations or pavement, these structures will be suitably braced or shored as long as the excavation is open.

4. Dirt removed from the excavation and other materials will not be piled closer than two feet to the edge and loose boulders, stumps and other debris that could slide into the excavation will be removed from the area.

5. Bridges, walkways, guardrails, barricades, warning signs, and lights will be placed over or near open excavations as required.

6. Ladders shall be placed at trenches to provide safe and convenient exists from the area in case of cave-ins.

7. Where it is necessary to undercut the side of an excavation, overhanging materials shall be safely supported.

8. Safety hard hats should be worn by employees engaged in excavation and trenching operations.

## E. Grass Cutting

1. Mower operators will wear eye protection ear protection and foot/toe protection shoes at all times.

2. No adjustments will be made by the operator or maintenance person while machine is running.

3. Gasoline for lawnmowers and other lawn care equipment will be kept in safety cans plainly lettered "Gasoline". All sources of ignition will be kept clear when fueling. Fueling will not be done while engines are running. Smoking is not allowed when fueling.

## F. Floors and Building Area

1. Maintain building floors clean and free of obstructions or slippery materials.

2. Floors will not be cleaned with flammable liquids. Adequate ventilation will be provided if cleaning is done with liquids containing toxic materials such as ammonia.

3. IF ANY PROBLEM OCCURS IMMEDIATELY CONTACT YOUR SUPERVISOR. (Be familiar with precautions and first aid procedures for that particular substance before using).

4. Dust, which can explode under certain conditions, will be kept down during sweeping by spreading an approved sweeping compound over the floor.

5. Spitting on floors will not be tolerated at any time.

6. Extreme care shall be taken to avoid excessive waxing or polishing. Floors that are too slippery are sources of accidents. Use only nonskid wax.

7. All projections shall be kept to a minimum on walls and ceilings. Ceilings will be kept in good repair and free of loose plaster and paint that could fall and injure persons below or create a health hazard.

## G. Vending Machines

1. Vending machines shall be located near an electrical receptacle to prevent the use of extension cords. They shall be located in an area where they do not interfere with the path of egress and in an area that does not cause a collision with the person using the machine and another employee.

2. Suitable waste receptacles will be provided where vending machines have been installed. All persons are instructed to return bottles to racks, and dispose of papers, cartons, and cups in trash cans.

## H. Clothing Storage

Keep personal clothing in a clean and orderly condition. To avoid spontaneous combustion, clothing or materials that are contaminated with flammable substances will not be placed in a closed area.

## I. Exterior of Buildings

Materials will not be stored under or piled against buildings, doors or exits, or under stairways. Roofs will be kept free of refuse such as sawdust, shavings, lint, trash, and other materials that can create a fire or tripping hazard.

### J. Street, Road and Excavation Barriers

1. All barrier markers and lights shall be maintained in good repair, and kept clean and brightly finished to insure high visibility.

2. Placement of traffic cones, warning flags, barriers and lights for street work will be in accordance with the Florida Manual on Traffic Control and safe practices.

3. All slow moving special purpose vehicles using street or roads, shall prominently display the SMV (orange triangle) on the rear.

## 12.21 OFF-THE-JOB SAFETY

**A. Off-the-Job Safety** is very important, time lost from the job is the same whether it is caused by an accident or injury on-the-job or away from work.

1. OFF-THE-JOB SAFETY should be an extension of ON-THE-JOB SAFETY.

2. Follow the same rules for Safety away from work.

3. OFF-THE-JOB SAFETY is important to your job, your family, your fellow workers and your community.

4. Some ways to encourage OFF-THE-JOB SAFETY:

a. Seasonal Programs: Safety programs are more meaningful if they are part of your regular routine. For example, water, sunshine and outdoor safety programs should be studied on a year round basis.

b. National Programs: Scheduled activities for Fire Prevention Week, Poison Prevention Week and other National programs to make people aware of their importance.

c. Community Programs: Take advantage of the Safety programs offered by most communities, such as life saving courses, driving classes and recreational safety programs.

d. Club Programs: Many service and social clubs have programs to teach or encourage safety. Members could promote such programs for the whole family.

e. County Sponsored Programs: Take advantage of County Sponsored Cardiopulmonary Resuscitation (CPR) and First Aid programs.

SET AN EXAMPLE: INDIVIDUALLY A PERSON CAN BE MOST HELPFUL IN IMPRESSING HIS FAMILY MEMBERS AND FELLOW WORKERS WITH THE IMPORTANCE OF SAFETY BY SETTING AN EXAMPLE AND PASSING SAFETY INFORMATION ON TO THEM.

You can do more things and you can do them better if you practice safety habits.

## 12.22 DEALING WITH AN ANGRY PERSON

### A. Deal With The Person's Feelings

The First Four Minutes. The pace of your response is important. The angry person wants you to feel how urgent his problem is and respond at once. So, after a minute or two, you should progress from empathy to fact-finding questions; and, by the time four minutes have passed at the longest, you should be suggesting solutions (Step Two B). Why four minutes?

Four minutes is not an arbitrary time; instead, careful observation has shown that four minutes is the average time during which strangers in a social situation interact before they decide to part or to continue their encounter.

### B. Empathize

1. Get on the same physical level (standing or sitting) as the angry person to establish eye contact. Looking at him/her enables you to judge the emotional content of the words as well as the facts.

2. Show your concern for the angry person by your facial expression, body position, gestures, and tone of voice (on the telephone, your tone of voice is your main tool for showing empathy).

3. If the angry accusations are noisy or disturbing others, take the person to a private place if one is available.

4. Show your sincere interest with empathetic responses. Acknowledge his/her anger. Examples:

a. "I'm sorry you're upset."
b. "That really does sound upsetting to have... I don't blame you for being upset."
c. "I could see how that would be a problem."
d. "I can understand your concern about..."
e. "I'm sure it was embarrassing to be... If a mistake was made, we will do our best to make the situation right."

## C. Ask Questions

1. Your goal is to determine either whom the angry person should see/talk with or what should be done.

2. Take good notes. Write down names, dates, amounts of money, permit numbers, etc.

## D. Give Feedback

1. Personalize. Use the person's name in conversation as often as possible (do not call them by their first name). Identify yourself to them and assure them that you personally will work to resolve their problem.

2. Interact with the person to understand fully what happened and to, as quickly as possible, accomplish your goal of determining who they would talk to or see what should be done. Examples of Questions and Feedback:

a. "What did you do then?"
b. "Who told you that?"
c. "I don't understand."
d. "Why did you think that?"
e. "Tell me more about that."
f. "Could you give me an example?"
g. Repeat important words.
h. Say "um-hum", especially over the phone.
i. Nod your head.

## E. Summarize

1. Repeat the story back to the angry person to be sure you have the facts straight.

2. Acknowledge what is right about her complaint, even if you believe the complaint is essentially in error. Examples:

a. "You are correct in saying that..."
b. "It does sound like..."

3. Admit the error if one has been made. Don't excuse or minimize the mistake.

NOTE: DO NOT PROCEED TO STEP TWO UNTIL YOU ARE SURE YOU HAVE DEALT WITH THE PERSON'S FEELINGS

**F. Deal With The Person's Problem**

1. Find Out What the Person Wants

a. Listen carefully to the remedies they have already tried.

b. Ask them what they want you to do to solve the problem.

2. Suggest Alternatives

a. If you can't do exactly what the person wants, tell them what you can do.

b. When possible, offer the person a choice among various possible courses of action to make them feel more in control of (and therefore less angry at) the situation.

3. Share Information

a. Explain to the angry person exactly what you are going to do and how long it is likely to take.

b. If you need to ask them to wait or to put them on hold, check back frequently to inform them of your progress.

c. Reassure them that you are their ally in solving the problem. They should feel that they are no longer alone with his problem in an adversarial predicament.

4. Agree On A Solution

If the final solution, replacement, permission, refund, apology, provision of extra services, etc., cannot be achieved immediately, take a mutually satisfactory interim step. Examples:

a. "Now that you have given me all these facts, I will review them with my supervisor when he returns and call you as soon as I have talked with them."

b. "I will be happy to... Will that be satisfactory to you? No? What would you like me to do for you? I'm sorry; I don't have the authority to do that, but I would be happy to do anything I can."

Dialogues of this type often prompt a degree of reason in a person who is making unreasonable demands because it forces him to realize the realistic limits of your authority.

5. Follow-up (if necessary)

a. Call back or contact by letter when or before you promised to, even if you have not been able to find the answer or resolve the problem. Doing so maintains your credibility.

b. Remember that every complaint is an opportunity to improve your relationship with the public. You can accomplish that goal a large percentage of the time by developing good communication skills, keeping calm, and showing through your actions that you and your office are competent, caring, willing, and able to correct errors as quickly as possible.

6. Benefits Of Empathy

a. Empathetic listening can solve another person’s problem by:

* Giving the person a chance to talk through problems and thereby clarify their own thinking about them, and

* Providing the necessary emotional release, letting them "get it off their chest".

b. Empathetic listening can reduce tensions.

c. Empathetic listening makes cooperation easier. When a person can tell another person is really interested in their problems, thoughts and opinions, they will have respect and will more readily cooperate.

d. Empathetic listening can enhance the self-concept of the person with problems. True listening assumes the other person has worth, dignity, and something to offer. This attitude makes a person feel good about themselves, we all like to feel valued.

e. Empathetic listening promotes communication and reduces arguments.

## G. Ten Commandments Of Good Listening

1. Stop talking! You can't listen if you're talking.

2. Put the talker at ease. Help the talker feel free to talk.

3. Show the talker you want to listen. Look and act interested. Listen to understand.

4. Remove distraction. Don't doodle, tap or shuffle papers. Close your door if possible.

5. Empathize with the talker. Try to put yourself in the talker's place so you can see the other point of view.

6. Be patient. Allow plenty of time. Don't interrupt. Don't start for the door or walk away.

7. Hold your temper. An angry person gets the wrong meaning from words.

8. Go easy on argument and criticism. This puts the other person on the defensive and he may "clam up" or get angry. Don't argue; even if you win, you lose.

9. Ask questions. This encourages the person, shows you are listening, and develops further conversation.

10. Stop talking! This is first and last, because all other commandments depend upon it. You just can't do a good listening job while you are talking.

Nature gave people two ears but only one tongue, which is a gentle hint that people should listen more than they talk. (excerpted from Human Relations at Work published by McGraw-Hill)